

Application Serial No. 10/803,939  
Reply to Office Action dated September 27, 2006

### REMARKS/ARGUMENTS

Initially, the Applicant would like to thank the Examiner for taking the time to discuss the current Office Action with the Applicant's representative during a telephone interview conducted on November 15, 2006. During the interview, the Examiner and the Applicant's representative discussed, in particular, the prior art combination of Hegeman (U.S. Patent No. 6,605,157) and Thies et al. (U.S. Patent No. 6,103,017). The Applicant basically argued: 1) at best, Thies et al. would suggest providing a pressure sensor in the fine filter chamber of Hegeman, not the pressure relief tube; 2) even incorporating a pressure sensor from Thies et al. into the pressure relief tube of Hegeman would not function to sense pressure, as the pressure relief tube is open to atmosphere; and 3) incorporating the pressure sensor from Thies et al. into the pressure relief tube of Hegeman would still not meet the claimed limitations. During the interview, the Examiner maintained his position that it would be obvious to combine the references. In any event, the Examiner at least agreed with the Applicant's representative that neither of the references teach sensing a presence of washing fluid in an overflow tube as required by claim 1. To this end, the Examiner recommended the filing of this written response in order to clear place these arguments on the record.

At present, claims 1-9 are pending in the application and currently stand rejected. The remaining claims, i.e., claims 10-24, were withdrawn from consideration following an election made to a restriction requirement presented on August 14, 2006. That being said, as will be discussed more fully below, the Applicant still submits that the restriction between claims 1 and 19 should be withdrawn. In particular, as will become fully evident below, claim 19 includes all the features argued below with respect to the allowance of claim 1. Therefore, if claim 1 is deemed allowable, claim 19 would also be in clear condition for allowance. The Applicant would then be required to just file a divisional application for the subject matter of claims 10-18, 23 and 24, the restriction of which has not been traversed by the Applicant.

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In general, the present invention, as set forth in claim 1, is directed to a dishwasher including a tub having a pumping unit which includes a motor for directing washing fluid to at least one wash arm. The dishwasher further includes a filter chamber that receives a portion of the washing fluid. The filter chamber entraps soil from the washing fluid and permits cleansed washing fluid to be directed back into the washing chamber. An overflow tube leads upwardly from the filter chamber such that washing fluid can rise within the overflow tube upon collection of too much soil in the filter chamber. A sensor is provided to signal a presence of washing fluid in the overflow tube. Upon receiving a signal from the sensor, a controller initiates a drain operation. That is, upon sensing a presence of fluid in the overflow tube, the controller initiates a drain operation to purge the filter chamber. In this manner, any fluid particles which may be in the overflow tube are not permitted to flow back into the washing chamber to be recirculated with clean water.

On page 3 of the Office Action, the Examiner outlines a rejection to claims 1-5 under 35 U.S.C. § 103(a) as being unpatentable over Hegeman in view of Thies et al. This rejection is respectfully traversed. Hegeman is directed to a method for operating a dishwasher fluid circulation assembly including a fine filter assembly 190 having a pressure relief port integral thereto and a pressure relief tube 312 that is in flow communication with fine filter assembly 190. Towards that end, pressure relief tube 312 prevents pressure in fine filter assembly 190 from exceeding a predetermined level. Pressure relief tube 312 extends upward adjacent a conduit 154 which feeds a mid-level spray arm assembly 148 and includes a vertical portion 314 that extends upwardly for a height H which is less than a height of an upwardly extending drain line 304. When pressure in fine filter assembly 190 is sufficient to force fluid the full height H in vertical portion 314, fluid overflows through open top 316 of pressure relief tube 312. Note that, in Hegeman, any fluid over flowing from pressure relief tube 312 will contain soil particles which are mixed with clean washing fluid in the washing chamber. In addition, Hegeman teaches that, by monitoring conditions in fine filter assembly 190 and/or drain line 304, a drain pump assembly 174 may be activated to open check valves 186 and 310 to drain fine filter assembly 190 and sump 150. That is, fine filter assembly 190 includes

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a fine filter drain pump 332 that facilitates independent draining of fine filter assembly 190 in response to, for example, a pressure condition in fine filter assembly 190. In any event, the Examiner indicates that the reference fails to disclose a controller linked to a sensor for initiating a drain operation for the dishwasher. Actually, Hegeman does initiate a drain operation in response to pressure conditions in fine filter assembly 190 as discussed above. However, Hegeman does not teach a sensor arranged in pressure relief tube 312, let alone a sensor for signaling a presence of washing fluid in the pressure relief tube, or initiating a drain in response to the presence of washing fluid in the pressure relief tube.

The Examiner argues that, in order to teach at least the missing controller limitation, Hegeman is properly combined with Thies et al. which discloses a controller for activating a drain pump in order to move particles from a sump to a drain. However, at no point in Thies et al. is there any discussion to sensing a presence of washing fluid in a pressure relief tube. Thies et al. simply includes a pressure sensor 52 which senses pressure within a soil collector. In Thies et al., a controller activates a drain pump to evacuate the soil collector when pressure conditions rise above predetermined levels in the soil collector. The Examiner argues that it would be obvious to include a controller as disclosed in Thies et al. in the dishwasher of Hegeman for the purpose of controlling the dishwasher.

First off, the Applicant respectfully submits that none of the prior art teaches a sensor of any kind in a pressure relief tube. Secondly, if, arguendo, there was any motivation to combine Hegeman and Thies et al., the combination would, at best, teach sensing a pressure build-up directly in a fine filter chamber and, based on the sensed pressure, activating a drain pump. That being said, why would there be any need, let alone a suggestion, to replace the filter draining arrangement in Hegeman with that disclosed by Thies et al.? In any case, the combination still does not meet the limitation of sensing the presence of washing fluid in the overflow tube.

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During the interview, the Examiner stated that, as a pressure relief tube exists (Hegeman) and a pressure sensor exists (Thies et al.), it would be obvious to sense pressure in a pressure relief tube. The Examiner also stated that it would be obvious to locate the pressure sensor in the overflow tube rather than the soil collector. However, the Examiner must understand that sensing pressure in pressure relief tube 312 is not possible given that tube 312 is open to atmosphere. Therefore, the combination as presented would simply not be functional. Moreover, even if the combination somehow were to work to sense pressure, the sensor would still not sense a presence of washing fluid as required by claim 1.

To this end, why would one of ordinary skill in the art place a pressure sensor in an overflow tube that is open to atmosphere? That is, in accordance with Hegeman, relief tube 312 is open, allowing washing fluid to flow out from an open, exposed end portion thereof when pressure rises in fine filter assembly 190. For the pressure sensor to even function, the end of the relief tube would need to be sealed or closed. However, closing off relief tube 312 and incorporating a pressure sensor would destroy the reference. More specifically, placing a pressure sensor in relief tube 312 would necessarily require closing off the open end portion of the relief tube. If relief tube 312 is not open to atmosphere, water could not enter when the pressure rises within fine filter assembly 190 thereby negating the pressure relief function. Then again, if relief tube 312 remains opened, how could pressure be measured? Regardless, as indicated above, claim 1 requires sensing a presence of washing fluid in the overflow tube, not pressure. None of the prior art references teach sensing a presence of washing fluid, particularly not in an overflow tube.

Claims 6-8 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Hegeman in view of Thies et al. as applied to claim 1 above and further in view of Whipple, III et al. For the reasons set forth above, the Applicant respectfully submits that combining Thies et al. and Hegeman to teach adding a pressure sensor in the pressure relief tube would destroy the Hegeman reference. Moreover, the Applicant respectfully submits that none of the prior art references teach sensing washing fluid in a pressure relief tube. In any event, the Examiner relies upon Whipple, III et al. to disclose sensing

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current of a pump motor to determine the washing fluid in a dishwasher. Initially, it should be noted that claim 6 requires sensing current drawn by a pumping unit and terminating a drain operation based on a change in the sensed current. Whipple, III et al. provides no teachings to terminating a drain operation based on changes in current flow. At best, Whipple, III teaches monitoring current draw to detect power consumption surges to control machine load.

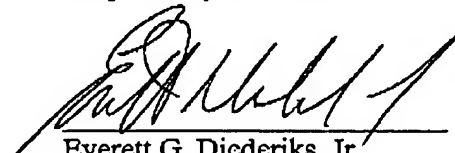
The Applicant respectfully submits that the prior art combination presented by the Examiner fails to teach many additional features found in dependent claims presented in the application. For example claim 2 requires that the sensor constitute a flow sensor. Claim 3 requires sensing a presence of washing fluid by completing an electrical circuit. Claim 4 adds a requirement for a filter unit provided atop the overflow tube. Claim 5 requires that the filter unit be included in a housing enclosing a filter. Actually, in addressing the above limitations, the Examiner simply makes a series of blanket, unsupported obviousness statements without any teaching in the prior art. To some extent, the Examiner appears to be basing his rejection on his personal knowledge. Accordingly, the Applicant respectfully requests that, if the Examiner continues to reject these claims, the Examiner support his statements with an affidavit as required by 37 C.F.R. § 1.104 (d)(2) and particularly point out how each and every claim limitation is addressed.

Based on the above remarks and the discussions held with the Examiner, it is respectfully submitted that the present invention is patentably defined over the prior art of record such that allowance of all claims and passage of the application to issue are respectfully requested. More specifically, the Applicant submits that sensing a presence of washing fluid in the overflow tube as required by claim 1 is not taught by the prior art. It should also be noted that this particular limitation is also present in claim 19. As the Examiner agreed that this feature patentably distinguishes the present invention over the prior art of record, no additional searching would be required for claim 19 and thus would not present a burden to the Examiner. Accordingly, the Applicant again respectfully requests that the restriction between claims 1 and 19 be withdrawn. If the Examiner

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should have any additional questions or concerns regarding this matter, he is cordially invited to contact the undersigned at the number provided below in order to further prosecution on this case.

Respectfully submitted,



Everett G. Diederiks, Jr.  
Attorney for Applicant  
Reg. No. 33,323

Date: December 20, 2006  
**DIEDERIKS & WHITE LAW, PLC**  
12471 Dillingham Square, #301  
Woodbridge, VA 22192  
Tel: (703) 583-8300  
Fax: (703) 583-8301